

NEWSLETTER

Commission on Climatology

N° 16

December 2013

Dear Friends and Colleagues,

The year 2013 is coming to a close. The year saw climatological issues at the forefront of advances in research. Climatological research pursued across the globe showed us that the weather extremes, climate and changes therein are particularly important in global social and economic development. The recent UN climate conference in Warsaw, Poland, confirmed the importance of climatological issues and underscored the difficulties associated with the creation of a new climate pact.

Hence, our Commission on Climatology is facing quite a challenge. One part of our mission is to promote research in the area of meteorology, climatology and related disciplines. In order to do this, the Commission will hold nine climatology sessions during the IGU Regional Conference, which will be held on August 18-22, 2014 in Krakow, Poland. The deadline for registering research papers and posters has been fixed on January 15, 2014. I cordially encourage you to register for the Conference and be active during the climatology sessions.

The year 2014 is upon us. I would like to take this opportunity to wish all climatologists all the best for the New Year and that all of your research efforts will be productive. Hope to see you at the Commission on Climatology sessions at the Conference in Krakow.

Best Regards,

Zbigniew Ustrnul (Chair of the Commission on Climatology)

Contents:

- 1. Membership
- 2. IGU Regional Conference, Kyoto, Japan 2013 report
- 3. IGU Regional Conference, Krakow, Poland 2014 announcement
- 4. XI-SBCG Brazilian Climatology Symposium, Curitiba, Brazil 2014 announcement
- 5. Others

IGU UGI

1. Membership

Full Members

Chair:

Zbigniew Ustrnul

Department of Climatology, Institute of Geography and Spatial Management, Jagiellonian University, Gronostajowa 7, 30-387 Krakow, Poland ph: +48 12 6645324, Fax: +48 126645385 e-mail: <u>zbigniew.ustrnul@uj.edu.pl</u>

Arieh Bitan

Department of Geography, Tel Aviv University, P.O. Box 39040, 69978 Tel Aviv, Israel ph: +972 3 6414148, 6405162 fax: +972 3 6406243, e-mail: bitana@post.tau.ac.il

Francisco Mendonça

Federal University of Paraná Dep Geografia Centro Politecnico Jd. Américas 81531-970 Curitiba Brasil ph : +55 41 3361 3458 e-mail: chico@ufpr.br

Latifa Henia

Faculté des Sciences Humaines et Sociales, Université de Tunis94, bd du 9 avril 1938, 1007 Tunis, Tunisie ph : +216 98 529 466 fax: +216 71 567 551 e-mail: <u>latifa.henia@fshst.rnu.tn</u>

Ana Monteiro

Department of Geography, Porto Universty, Via Panorâmica s/nº, 4150 Porto, Portugal ph: +351 919698402 e-mail: <u>anamt@letras.up.pt</u>

Nigel Tapper

Department of Geography and Environmental Science, Monash University, Victoria, Australia ph: +61 3 99052931 fax: +61 3 99052948 e-mail: nigel.tapper@arts.monash.edu.au

Elena Voskresenskaya

Marine Hydrophysical Institute, 2 Kapitanskaya St., 99011 Sevastopol, Ukraine ph. +380 692 545400 fax +380 692 544358 e-mail: <u>elena_voskr@mail.ru</u>

Secretary:

Kristina Blennow S. Swedish Forest Research Centre Swedish Univ. of Agric. Sciences, P.O. Box 49, SE-230 53 Alnarp, Sweden ph: +46 40 415230 Fax: +46 40 462325 e-mail: Kristina.Blennow@ess.slu.se

Jun Matsumoto

Department of Geography, Tokyo Metropolitan University, Minami-Ohsawa 1-1, Hachioji-shi, 192-0397 Tokyo, Japan ph: +81 42 677 2596, fax: +81 42 677 2589, e-mail: jun@center.tmu.ac.jp

Roger S. Pulwarty

National Oceanic and Atmospheric Administration and University of Colorado, Climate Diagnostics Center, 325 Broadway, R/CDC1, Boulder Colorado 80305, USA ph: +1 303 497 4425 e-mail: roger.pulwarty@noaa.gov

Alain A. Viau

Département des sciences géomatiques, Faculté de foresterie et de géomatique, Pavillon Louis, Jacques-Casault, local 3731, Québec (Québec) G1K 7P4, Canada ph: +1 418 656 2072 fax: +1 418 656 5837, e-mail: <u>alain.viau@scg.ulaval.ca</u>

Honorary & Senior Members

S. Gregory (U. K.), M. Yoshino (Japan), M. Domroes (Germany), L. Nkendirim (Canada), A. Douguédroit (France), R. Brazdil (Czech Republic), T. Mikami (Japan).



2. IGU Regional Conference, Kyoto, Japan 2013 – report

IGU 2013 KYOTO REGIONAL CONFERENCE 2013年京都国際地理学会議 Avadust 4-9, 2013 KYOTO INTERNATIONAL CONFERENCE CENTER NATIONAL COMMETTER OF LIGHT REAL FOR

In IGU Kyoto Regional Conference, held at Kyoto International Conference Center, Japan from August 4 to 9, 2013, we organized the following four commission sessions in twelve slots.

- ✓ On August 5 and 6, CS04 1-4 Climatic change and variability in different spatial and temporal scales (1)-(4), 13 presentations, chaired by Masumi Zaiki of Seikei Univ., Keiji Kimura of Hokkaido Univ., Haruhisa Asada of Nara Women's Univ., and Ikumi Akasaka of Senshu Univ.
- ✓ On August 7, CS04 5-8 Urban climate (1)-(4), 12 presentations, chaired by Hiroyuki Kusaka of Univ. Tsukuba, Toshiaki Ichinose of National Institute for Environmental Studies, Takehiko Mikami of Teikyo Univ., and Fumiaki Fujibe of Meteorological Research Institute.
- ✓ On August 8: CS04 9-12 Past, present and future changes of Asian and Australian monsoon and their impact on nature and society (1)-(4), 11 presentations, chaired by Jun Matsumoto of Tokyo Metropolitan Univ., Chih-Wen Hung of National Taiwan Normal University, Hisayuki Kubota of Japan Agency for Marine-Earth Science and Technology, and Hiromitsu Kannno of National Agricultural Research Center.



1. Session CS04-3 on August 6, 2013

In addition, we organized two joint sessions with the Commission on Hazard and Risk, and the Commission on Water Sustainability:

✓ On August 6, CS40-1 Water resources and climate change (Joint session with the Commission on Water Sustainability), one slot with two presentations chaired by

IGU UGI Claudio Cassardo of Univ. of Torino.

✓ On August 7, CS18 16-17 Climate-related risk and hazard in the 21st century (Joint session with the Commission on Hazard and Risk), two slots with 6 presentations, chaired by Jun Matsumoto of Tokyo Metropolitan University.

Furthermore, we organized two general sessions, Climatology, and Water resources. On August 6, GS 113 1-2 Climatology (1), (2), two slots with 7 presentations, and GS116 Water resources, one slot with 4 presentations. Both sessions were chaired by Jun Matsumoto of Tokyo Metropolitan University. In addition, 11 posters were presented in 113 Climatology, one poster in 114 Meteorology and in 115 Hydrology, respectively.



2. Prof. Masatoshi Yoshino & Prof. Jun Matsumoto

As such, we successfully organized abundant sessions in climatology related fields, and we had very active discussions within participants in all sessions, although no commission members attended from abroad. In particular, we had a number of interesting presentations related with Asian monsoon. It should also be noted that Prof. Masatoshi Yoshino, the founder of our commission and the former vice president of IGU, and Prof. Takehiko Mikami, the former commission member from Japan, gave their valuable presentations in our commission sessions. They also attended most of our sessions and gave their valuable comments on presentations. I would like to thank all the presenters, attendants and chairs in our sessions.

Jun Matsumoto, Tokyo Metropolitan University, JAMSTEC/RIGC, Japan (Commission on Climatology Full Member)

Programme and Abstracts are still available at: http://oguchaylab.csis.u-tokyo.ac.jp/IGU2013/igu_2013.html

IGU UGI

3. IGU Regional Conference, Krakow, Poland 2014 – announcement

2014 IGU Regional Conference which will be held in Kraków, Poland, 18-22 August, 2014 (<u>http://www.igu2014.org</u>).



The theme of the conference is **CHANGES** (that can observe in both natural and human systems, significantly influencing the present and future well-being of societies), **CHALLENGES** (that modern geography faces as its aim is to support citizens in better understanding the world we live in), **RESPONSIBILITY** (for the future of our world).

9 sessions covering broad range of topics are arranged by Commission on Climatology during the Conference:

1. Session:

Climate change and variability in different spatial and temporal scales **Chair(s):** Nigel Tapper, Mirosław Miętus

Abstract:

Climate change and variability has been recently the main research problem in climatology and environmental studies. Both, climate oscillations themselves and their impact on human activities and the environment have been analyzed. The session focuses on descriptions and understanding of past and current climate with the regard to different spatial scales. The objectives are to identify climate change indicators from the global perspective towards the local level encompassing time scales ranging from short-term climate variations of a season or less to longer term climate changes occurring over decades to centuries. Presentations discussing direct causes of the climate change and variability have will be highly recommended. Other issues including climatic scenarious are welcome.

2. Session:

Weather and climate extremes Chair(s): Stefan Brönnimann, Zbigniew Ustrnul

Abstract:

IGU UGI A heated debate about weather and climate extremes has been going on in recent years all over the world. Hundreds or even thousands of publications and media reports on extreme weather phenomena have been produced, but a shortage of publications based on long-term homogenous data series can be felt. There are many questions which still remain unanswered. The session is focused on the occurrence, trends, and forecasting of extreme events with the special regard to methodological problems and the issue of the direct causes of their appearance. It will also discuss the question how extreme events, such as droughts, floods, heat waves, and hurricanes, are related to climate variability and change.

3. Session:

Historical climatology **Chair(s):** Rudolf Brazdil, Rajmund Przybylak

Abstract:

The session is open for all participants who intend to present different aspects of the historical climatology. Studies concerning both instrumental measurements as well as proxy data are strongly expected. We seek presentations with the results of local, regional and global research.

4. Session:

Climate modeling and scenarios **Chair(s):** Joanna Wibig

Abstract:

The climate is changing on all timescales. It is of great importance to be able to predict changes in climate mean, variability and extremes for decades and centuries ahead. Such predictions are based on statistical or/and dynamical models and used in a variety of impact models. The session invites papers related to:

- Decadal-to-centennial climate predictions
- Local, regional and global climate change scenarios
- Tailoring climate predictions and scenarios to cover end user needs
- Uncertainty issues related to climate change scenarios

5. Session:

Polar and mountain climates Chair(s): Rajmund Przybylak, Tadeusz Niedźwiedź

Abstract:

All meteorological and climatic issues concerning polar and mountain areas are expected. Studies with different spatial and temporal scales can be given.

6. Session:

Urban climates Chair(s): Hadas Saaroni, Krzysztof Fortuniak

Abstract:

The session is devoted to research into the atmospheric processes operating in built areas as well as weather, climate and surface hydrology experienced. Problems of urban impacts on temperature (including the UHI), urban bioclimates, topoclimatology of cities, surface moisture, dew, evaporation, humidity, fog, cloud and precipitation, interactions between urban climate and the emission, dispersion, transport, transformation and removal of air pollutants will be presented. The session also aims to discuss developments in research (including remote sensing of cities and urban climate) and the application of climatic knowledge to the design of better cities and human comfort.



7. Session:

Atmospheric circulation in different scales Chair(s): Zbigniew Ustrnul, Jun Matsumoto

Abstract:

Atmospheric circulation is unquestionably listed among the fundamental causes of weather and climate. The session is dedicated to topics concerning circulation classifications in different scales, circulation indices and links between circulation and weather or/and climate as well as other natural elements. The relationship between circulation and human activity can be also presented. Finally, the topics with weather classification are strongly recommended.

8. Session:

GIS and remote sensing in atmospheric sciences Chair(s): Ole E. Tveito, Agnieszka Wypych

Abstract:

The session is dedicated to broad scope of meteorological and climatological issues using GIS and remote sensing data and methods. Studies of other related key topics (e.g. land use and climatic changes, water and natural resources with respect to climate, air quality etc.) with be also acceptable. Presentations concerning different spatial and temporal scales are expected. Simultaneously, theoretical as well as practical approaches could be presented.

9. Session:

Climate change impacts and vulnerability **Chair(s):** Julie A. Winkler, Krzysztof Błażejczyk

Abstract:

The potential impacts of climate variability and change on natural and human systems are complex. Furthermore, the analytical frameworks and models needed to understand and simulate the linkages between the physical and socio-economic components of potential climate impacts, and to evaluate adaptation options and management strategies, are incomplete. This session will include presentations by physical and social scientists and will focus on

1) historical climate variability and impacts

- 2) novel approaches for climate impact and vulnerability assessments
- 3) the evaluation of adaptation and mitigation options

DEADLINES

IGU UGI

Abstract submission:15 January 2014Reduced registration fee:2 April 2014Last possible registration date for the Conference:15 May 2014One-day tickets may be purchased during the Conference.

http://www.igu2014.org/downloads/igu2014_Poland_2nd_circular.pdf

The CoC sessions are intended to be held during first two days of the Conference (Mon, 18.08 – Tue,

19.08). Number of session slots and the detailed timetable will be known after 15th January 2014

(abstract submission deadline).

XI – SBCG / BRAZILIAN CLIMATOLOGY SYMPOSIUM (under the auspices of IGU – Commission on Climatology) Curitiba / Brazil – 14 to 17/10/2014

CLIMATE CHANGE AND VARIABILITY: STATE OF THE ART AND PERSPECTIVES FOR INTERACTION-NATURE SOCIETY

Axes:

1. Theoretical and methodological advances in the study of climate

- 2. Qualitative and quantitative modeling in climatology
- 3. Risks, vulnerabilities and resilience associated with climate
- 4. Applied Climatology: urban climate, agroclimatology, health, etc..
- 5. Climatology and teaching
- 6. Tropical climatology

Activities:

- 3 Conferences
- 4 Roundtables
- 5 mini-courses
- Presentation of oral communications and posters
- Annual closure (ABClima Brazilian Association of Climatology)
- Tours travel (Foz do Iguacu, Coastline, Metropolitan Region of Curitiba ...)
- Publication of books, magazines, etc.
- Etc.

Organization/Chair

ABCLIMA – Brazilian Association of Climatology UFPR – Federal University of Paraná LABOCLIMA –Climatology Lab / UFPR

Supports:

IGU UGI AGB – Associação de Geografos Brasileiros ANPEGE – Assoc Nac Pesquisa e Pós-graduação em Geografia CAPES – Coord de Aperfeiçoamento de Pessoal de Nivel Superior CNPQ – Conselho Nacional de Desenvolv Cientifico e Tecnológico CREA/PR – Cons Reg Engenharia e Agronomia / Reg. Paraná FUNDAÇÃO ARAUCARIA DE PESQUISA DO PARANÁ PPGEO – Programa de Pós-graduação em Geografia/UFPR SIMEPAR – Sistema Meteorológico do Paraná UFPR – Departamento de Geografia

5. Others

Corresponding Members

We kindly remind and ask every Commission on Climatology Full Member to prepare the potential list of Corresponding Members: people who are interested in cooperating in the frame of CoC, who find the CoC activities important and have the possibility and – what's more important – desire to sustain the international research cooperation and studies on the field of climatology, encourage the exchange of relevant documents and information and organize conferences or meetings. We would try to involve all the people to meet together in Cologne to discuss further perspectives and plans for CoC activities.

CoC website

http://www.klimat.geo.uj.edu.pl/CoC.htm

